

REMARKS

Independent claim 26 has been amended to better clarify the invention and better distinguish the invention from the prior art. More particularly, independent claim 26 has been amended to incorporate the limitations of dependent claim 12, which has been canceled.

Turning to the art rejections, and considering first the rejection of claims 14, 15, 23, 24, 26 and 28 as anticipated by Chow et al., the above-mentioned amendment of claim 26 renders the rejection of the claims as anticipated by Chow et al. moot since Chow et al. nowhere teaches interrupting the deposit periods by cooling periods as required by claim 26, as amended.

Similar comments apply to the rejection of claims 14, 15, 21 and 24 as obvious from Kihara et al. in view of Chow et al. and further in view of Waldorf et al., and the rejection of claims 14, 15, 21, 22, 24 and 25 as obvious from Tsujimura et al. in view of Chow et al. and further in view of Waldorf et al., since neither primary reference Kihara et al. or Tsujimura et al. or the secondary references Chow et al. and Waldorf et al. teach or suggest interrupting the deposit periods by cooling periods, as required by claim 26, as amended.

Turning to the rejection of claims 12-17, 19, 21, 23, 24, 26 and 28 as obvious from Kihara et al. in view of Chow et al., the Examiner acknowledges, on page 7 of the Action, that the combination of Kihara et al. and Chow et al. “does not explicitly teach interrupting and then restarting the deposit to allow the substrate to cool, or that the substrate is cooled during deposit or during periods of interruption of deposit.” However, the Examiner takes the position that Kihara et al. involves interrupting the deposition so that “at least some degree of substrate cooling would occur....” Applicants submit however that there is no disclosure or suggestion within the four corners of Tsujimura et al. of interrupting the deposit periods by cooling periods

lasting for a time equivalent to one or several times the preceding deposit period as required by independent claim 26, as amended. Rather, all that Tsujimura et al. teaches is to interrupt deposit times sufficient for switching gases for depositing layers of differ materials. This very short switching time cannot be equated to the cooling period required by claim 26, as amended. Moreover, this distinction is more than merely academic since only by interrupting the deposit periods with cooling periods of duration equivalent to one or several times the preceding deposition period, will temperature rise in the substrate be avoided and crystallization of the hafnium oxide effectively be avoided so as to ensure an amorphous growth of hafnium oxide.

Thus, no combination of Kihara et al. and Chow et al. could achieve or render obvious claims 12-17, 19, 21, 23, 24, 26 or 28, and the rejection of claims on this basis is in error.

Similar comments apply to the rejection of claims 12-17 and 19-28 as obvious from Tsujimura et al. in view of Chow et al. Tsujimura et al. also fails to teach or suggest interrupting the deposit periods by cooling periods of the time equivalent to one or several times the preceding deposit, as required by claim 26, as amended, or the advantages resulting therefrom as above discussed. Accordingly, no combination of Tsujimura et al. and Chow et al. could achieve or render obvious any of claims 12-17 and 19-28, and the rejection of the claims on this combination of art likewise is in error.

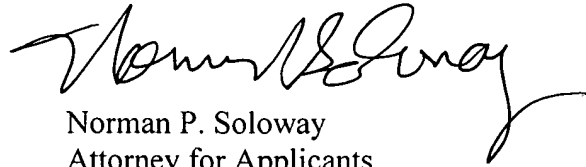
Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action is respectfully requested.

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Respectfully submitted,



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